

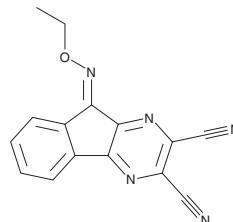
PRODUCT INFORMATION



DUBs-IN-2

Item No. 36229

CAS Registry No.: 924296-19-5
Formal Name: 9-(ethoxyimino)-9H-indeno[1,2-b]pyrazine-2,3-dicarbonitrile
Synonyms: Deubiquitinase Inhibitor 2, DUBs Inhibitor 2, HY-50737A
MF: C₁₅H₉N₅O
FW: 275.3
Purity: ≥95% (mixture of cis/trans isomers)
UV/Vis.: λ_{max}: 211, 226, 278, 322 nm
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

DUBs-IN-2 is supplied as a solid. A stock solution may be made by dissolving the DUBs-IN-2 in the solvent of choice, which should be purged with an inert gas. DUBs-IN-2 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of DUBs-IN-2 in these solvents is approximately 5 mg/ml.

Description

DUBs-IN-2 is an inhibitor of ubiquitin-specific protease 8 (USP8; IC₅₀ = 280 nM).¹ It is selective for USP8 over USP7 (IC₅₀ = >100 μM). DUBs-IN-2 increases the level of programmed cell death protein ligand 1 (PD-L1) in H460 cells when used at a concentration of 2 μM and PC-9 cells at 2 and 4 μM.² Intraperitoneal injection of DUBs-IN-2 (1 mg/kg every other day), in combination with an anti-PD-L1 antibody and paclitaxel (Item No. 10461), decreases tumor weight, tumor size, and lung metastasis and increases CD8⁺ T cell numbers within the primary tumor in a 4T1 murine mammary carcinoma model.³

References

1. Colombo, M., Vallese, S., Peretto, I., *et al.* Synthesis and biological evaluation of 9-oxo-9H-indeno[1,2-b]pyrazine-2,3-dicarbonitrile analogues as potential inhibitors of deubiquitinating enzymes. *ChemMedChem* **5**(4), 552-558 (2010).
2. Xiong, W., Gao, X., Zhang, T., *et al.* USP8 inhibition reshapes an inflamed tumor microenvironment that potentiates the immunotherapy. *Nat. Commun.* **13**(1), 1700 (2022).
3. Xie, F., Zhou, X., Li, H., *et al.* USP8 promotes cancer progression and extracellular vesicle-mediated CD8⁺ T cell exhaustion by deubiquitinating the TGF-β receptor TβRII. *EMBO J.* **41**(16), e108791 (2022).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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